MENTORING IN MEDICAL CONTEXTS

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Abstract

The mentoring relationship has been described as an invaluable learning process for beginners as well as experienced practitioners such as teachers, administrators, nurses, doctors, managers, and other professionals. In previous research, we conducted a structured review of mentoring in business contexts (Hansford, Tennent and Ehrich, 2002) and in education contexts (Hansford, Tennent and Ehrich, in press) in an attempt to understand more fully the elusive meaning and nature of mentoring. We were also interested in identifying positive and negative outcomes for participants in mentoring programs. The results of these studies prompted us to investigate whether mentoring programs were as commonplace in or resulted in similar outcomes to other professions, such as medicine and law.

In this paper, we focus on mentoring in medical contexts. The study reports on the findings from our analysis of 82 articles published between 1995 to 2002 that relate to mentoring in medical contexts. Our analysis revealed that the majority of these articles were descriptive in nature. These articles generally recommended that mentoring was a positive learning activity for medical practitioners and specialists alike. However, very few of these articles reported original research findings. This paper, then, examines the database of medical articles in order to draw inferences about the meaning and scope of mentoring in medical contexts and its positive and negative outcomes for those involved. We highlight the diversity of issues raised during mentoring sessions between mentors and mentee general practitioners and describe some of the functions that mentoring performs. We also describe several case studies of mentoring programs that illustrate the different types of mentoring programs that have been utilised in the medical field. These include mentoring of junior staff in medical schools, hospitals and universities; mentoring of overseas doctors and novice doctors; mentoring for minority group members within university environments; and peer mentoring arrangements for general practitioners.

We also make some comparisons between mentoring in medical, education and business contexts. This includes comparing and contrasting the positive and negative outcomes from mentoring across the different contexts. The paper concludes with a discussion of several critical issues planners of mentoring programs in medical contexts should consider.

MENTORING IN MEDICAL CONTEXTS

Background

The mentoring relationship has been described as an invaluable learning process for beginners as well as experienced practitioners in a range of professional fields such as schools, universities, hospitals and organisations. In previous research we conducted two structured reviews of mentoring. The first of these examined 159 pieces of empirical research on mentoring in education contexts (Hansford, Tennent and Ehrich, in press), while the second examined 151 pieces of empirical research on mentoring in business contexts (Hansford, Tennent and Ehrich, 2002). Both studies were carried out in order to understand more fully the elusive meaning and nature of mentoring, as well as its positive and negatives outcomes for interested parties such as mentors, mentees, and the organisation. Findings from business and education focused studies prompted us to investigate the nature, frequency and outcomes stemming from mentoring in other professional areas such as medicine and law. In this study, we have chosen to explore mentoring within medical contexts on the basis of the apparent strength, standing and age of the profession. Initially our searches were confined to locating data based mentoring studies in general practice. However, we soon found that there were very few empirical studies on mentoring reported in medical contexts. This seemed to suggest that although medical mentoring articles are not uncommon in the literature, few provide detailed information on research methodology, the positive and negative outcomes from mentoring programs or general research outcomes. A series of computerised searches were then conducted in medical contexts generally and we identified 82 recent articles from 1995 – 2002. An examination revealed many of these articles were descriptive in nature and often appeared to focus on the potential value of engaging in mentoring. Eight reports of outcomes resulting from mentoring were located and some of these were brief and lacked methodological detail.

It is important to point out that in this paper we are not proposing that the 82 articles reviewed reflect all studies in the period since 1995. Rather that the sample is sufficient to provide a reasonably good reflection of what has occurred in relation to mentoring in medical contexts during that period of time. As a consequence of the articles obtained in the searches, the current study focuses on the meaning of mentoring within medical contexts; the need for mentoring; the focus of mentoring sessions for mentees in medical contexts; examples of formal mentoring programs from the field; positive and negative outcomes of mentoring; a comparison of mentoring outcomes from medical contexts with mentoring outcomes in education and business; problems associated with establishing mentoring programs; and critical issues planners of mentoring programs in medical contexts should consider.

Informal and Formal Mentoring

The concept of informal or traditional mentoring appears to stem from Homer's Odyssey where in ancient Greece, Odysseus, about to leave for the Trojan War, entrusted the education of his son Telemachus to Mentor, a loyal servant. Although mentoring has continued in many forms for years, it was possibly the work of Roche (1979) that stimulated most interest in the potential value of mentoring. Roche reported that 75% of the top executives in the United States had been mentored.

Interestingly, these mentored executives earned 28% more than their counterparts, were more likely to have a degree, were happier with work, and were more likely to mentor others.

Mentoring in workplace settings has traditionally developed in an informal manner, that is, the mentor and mentee some how find each other (Kram, 1985). However, over the last thirty years, formally structured programs began to emerge in western countries such as the United Kingdom, Australia and United States as a human resource management tool to develop the competencies of new and experienced staff. Yet formal mentoring programs across and within different organisations and professional groups differ greatly. An examination of the mentoring literature indicates that some programs train mentors, others do not; mentors are sometimes assigned to mentees while in other programs the mentee selects the mentor; some programs designate the location of meetings, the number of meetings and the frequency of meetings, others leave it up to the participants; some mentoring programs are comprehensively evaluated, others are either not evaluated, or "evaluated" by vague and imprecise techniques (Jacobi, 1991). Meriam's (1983) assertion that many evaluations of mentoring programs "consist of testimonials and opinions"(pp.172-173) is still supported by our recent consideration of mentoring literature.

Towards a Definition of Mentoring

The Standing Committee on Postgraduate Medical and Dental Education (SCOPME) (1998a) defined mentoring as a

> process whereby an experienced, highly regarded, empathic person (the mentor) guides another individual (the mentee) in the development and examination of their own ideas, learning and personal and professional development. The mentor, who often, but not necessarily, works in the same organization or field as the mentee, achieves this by listening and talking in confidence to the mentee. (p.1)

Although Grainger (2002) also uses this definition, other views and definitions exist. For example, Lingam and Gupta (1998) define mentoring as a "process by which one person acts toward another as a trusted counsellor and guide" (p.1). Physician Health Services (2001) similarly describe the mentor as "a physician role model, assisting with patient-physician encounters, and sharing experiences in a respectful and trusting environment" (p.1). The British Medical Journal (1998a) is more critical claiming that "mentoring for doctors is a vague concept, though there seems to be almost as many definitions of what it actually means as there are schemes to promote it"(p.1).

The complexities surrounding the term mentoring are highlighted in the following examples from the University of Texas and from survey data collected in the United Kingdom. A meeting held in 1996 at the Health Sciences Center, Houston (University of Texas) identified a number of questions and issues regarding mentoring. Under the topic of "What Constitutes Mentoring"? the meeting summary described mentoring as follows:

> There are many types of mentoring. Functional mentoring areas might include teaching, research and publication. Other types of mentoring may be oriented toward teaching a person to work effectively within an organization. Every professional encounter, whether it is a meeting or a casual conversation, is an opportunity to mentor. This is especially important when time is limited. (p.2)

It would seem from the above statement that mentoring was being conceptualised in an extremely broad and rather encompassing manner. A survey conducted by Okereke and Naim (2001) revealed that all senior house doctors (N=23) were familiar with the concept of mentoring; however, only 43% of them were able to provide a reasonable definition of the term (p.259). It is our impression that mentoring has been defined very generally in medical contexts and that there well may be differences in the application of the term in a nationalised medical system such as the United Kingdom and the medical settings in the United States.

Before leaving this section on the meaning of mentoring it should be pointed out that a number of the mentoring articles we examined reported a perception that mentoring should not be formalised (see for example, Bligh, 1999; Health Science Center, 1996; SCOPME, 1998a). This in part might explain the lack of precision in comments made regarding the defining of mentoring.

Need for Mentoring

In our two previous structured reviews of mentoring in the business and educational literature we located a number of papers that emphasised mentoring was a potentially productive path for an organization to pursue because of benefits for mentors and mentees. This strong claim for the inclusion of formal mentoring programs in a range of contexts was also evident in the medical literature.

In his discussion on mentoring, Freeman (1997) argued that the "benefits, when set against the current concerns about recruitment and retention of expensively trained practitioners, would seem to outweigh the comparatively modest cost of maintaining a mentor scheme" (p.459). Grainger (2002) also recommended that mentoring programs should be established in medical settings. This contention is based on the belief that the "mentor equips the mentee by passing on needed skills, values, and knowledge …(the) mentor empowers the mentee" (p. 4). In his presidential address to the Cervical Spine Research Society, Herkowitz (1999) stated "[o]ur primary responsibility in medicine is not only to our patients but also to our colleagues…. Each member… encourage [s] the younger generation through mentor-based learning" (p.2).

Several papers also call for the introduction of mentoring on the basis of work-related problems. For example, Alliott (1996) contends that it is the levels of stress in general practice that make mentoring a promising path to follow.

> Stress is now a major problem in general practice. Many practitioners do not consult their own doctors or even recognise they have a problem until it is too late. Mentoring is a means of reaching general practitioners in an acceptable non-threatening way, allowing them to discuss problems without losing face. (p.2)

Powell and Napper (n.d.) report that each general practitioner is responsible for their own continuing education and professional development. Using such terms as "demoralization", "stress", "enforced change", "threats to professional autonomy", "excessive work load", and "increased patient expectation" (p.2) to describe the medical scene, Powell and Napper (n.d.) conclude that "mentoring has much to offer general practitioners – both in term of personal support and to assist professional development". (p.9)

A number of papers report that little has been documented about mentoring in medical contexts, particularly in specialised areas of medicine. Kirsling and Kochar (1990) for instance claim "little has been written about the mentor relationship in medical education" (p.272) and go on to say that this particularly applies in "graduate medical education, where no research papers have been reported" (p.272). Following a survey of senior faculty members at the Madison Medical College of Wisconsin (n.d.), these authors reported "the mentor relationship appears to have significant benefits for medical trainees and should be promoted" (p.272). Pololi, Knight, Dennis and Frankel (2002) indicate there is a rich mentoring literature in business and academic settings, but "there are few descriptions of mentoring programs for medical faculty…and few published studies of mentoring's effectiveness for them" (p.377). These authors report on results from a collaborative or peer-group mentoring program at the Brody School of Medicine at East Carolina University and conclude by saying "Collaborative mentoring offers an innovative and cost effective approach to medical school faculty medicine not previously reported in the literature" (p.384).

Rodenhauser, Rudisill, and Dvorak (2000) suggest that the literature relating to psychiatry reflects support for the concept of mentoring. Yet their literature search found "no published articles with titles addressing medical student and psychiatric mentors… no articles specific to mentoring and development of psychiatric mentors" (p.2). Following a detailed review of literature, Rodenhauser, Rudisill and Dvorak (2000) concluded:

> Mentoring in psychiatry has implications for recruitment of medical students into the speciality, acculturation of residents into the theory and practice of psychiatry, support for career development in subspecialty areas, attraction to and encouragement of research as well as other academic pursuits, junior-faculty career development, and patient care. (p.17)

In a paper entitled "Recommendations For A Successful Mentoring Program"(n.d.) the National Centers Of Leadership in Academic Medicine made the following statements:

> It had been demonstrated that effective mentoring is essential to career development and advancement … Unfortunately women physicians often lack access to important mentor relationships … can lack opportunities that would bring them into leadership positions. (p.2)

This concern about the lack of mentoring opportunities for members of minority groups in medical contexts is evident in other papers. For example, Johnson, Jayadevappa, Taylor, Askew, Williams and Johnson (1998) state "minority physicians

often seemed unsuccessful in finding mentors" (p.238). They go on to outline a program, discussed more fully later in this paper, that involves minority undergraduates, medical students, residents, fellows and faculty. The next section outlines some considerations for planning a mentoring program.

The Focus of Mentoring Sessions /Discussions

Because one of the critical aspects of mentoring is confidentiality, little is known of the interactions that take place between mentors and mentees. In their description of the mentoring model, Powell and Napper (n.d.) state the classical model of mentoring "offers two main strands of support 'professional development' and 'personal issues' support" (p.5). They further point out that the continuing education of mentees is subsumed within professional development. Their article then briefly outlines what is covered under professional development support, continuing education support and personal support. In the United Kingdom, The Standing Committee On Postgraduate Medical and Dental Education (1998a) adopts a similar approach recommending that mentoring should focus on three distinct but overlapping supports (i.e. professional development, personal support and education). Specific aspects of these supports are outlined in Table 1.

Table 1

Potential Focus of Mentoring Sessions for General Practitioners
1. Professional development: • Career issues: development, feedback, change management, delegation and the future of general practice; • Practice issues: relationships with partners, partnership stress, and practice management.
2. Personal support: • Personal stress; • Work versus personal life; • Personal problems; • Coping strategies.
3. Education: • Educational planning; • Patient management; • Clarifying educational goals; • Problem case analysis; • Passing the membership of the Royal College of General Practitioners.

(Taken from SCOPME, 1998a, p. A4)

Only two of the papers reviewed detailed issues raised between mentors and mentees during mentoring sessions. These were papers by Alliott (1996) and Woessner, Honold, Stehnle, and Stendel (1998). Alliott's research focused on "facilitatory mentoring" sessions between medical practitioners at the Anglia postgraduate deanery (1996), while the work of Woessner et al. (1998) described a mentoring program for faculty staff (mentors) and university students studying medicine (mentees) in a German faculty of medicine.

Alliott's study of general practitioners in the United Kingdom who had participated in a mentoring program, identified the following issues presented in Table 2.

Table 2

Issues Raised During Mentoring Sessions
Pastoral • Moral/stress Personal problems Fears for the future Complaints Isolation On call, cooperatives • Financial problems • Government control • Separating home from work • Relationships and attitudes • Physical health • Single handed (if applicable) • Retirement (if applicable)
Educational • Educational needs New knowledge and skills Self assessment Portfolio • Audit • Time management • Practice problems • Reaccreditation • Future developments

In the German study by Woessner et al. (1998) five major issues were discussed during the mentoring sessions. These issues related to the curriculum, difficulties in dealing with university teachers, questions concerning dissertations, career planning, and personal problems (Woessner et al., 1998, p.442). While the study occurred in a different medical context from that described by Alliott (1996), it is worth noting that even though personal problems were identified as a major issue for discussion between mentors and mentees, 86.7% of the respondents reported that personal problems were rarely if ever discussed. The diversity of issues highlighted in Tables 1 and 2 underscore the importance of the effective training of mentors.

Examples of Mentoring Programs

While there appears to be a growing body of literature dealing with mentoring in medical contexts, much of this literature tends to be anecdotal rather than research based. This coupled with the rather broad application of the term mentoring in medical literature, it has been difficult to determine what might be described as the "exemplars" of mentoring in medical contexts. Thus, we have selected several specific medical contexts in which mentoring has operated and the next section will

briefly describe the different types of programs that have been implemented. The types of mentoring arrangements found in these contexts have included mentoring of junior staff in medical schools, hospitals and universities; mentoring of overseas doctors and novice doctors; mentoring for members of minority groups; and peer mentoring arrangements for general practitioners.

General Practice

Two of the general practice examples come from the deaneries at East Anglia and Yorkshire in the United Kingdom. The third comes from the South Thames (West) Region. At East Anglia, Alliott (1996) examines what he refers to as "facilitatory mentoring", a method of mentoring involving dialogue between two autonomous practitioners on a voluntary basis. Alliott notes that facilitatory mentors must be well versed in the complexities of general practice and be aware of the need for confidentiality. When such a mentor is appointed, general practitioners are advised of their availability. Interested General Practitioners (GP's) can then arrange a meeting with mentors, usually at their own home or surgery. Meetings usually last for 60 to 90 minutes with the agenda being determined by the mentee. Outside scheduled meetings there is also a crisis service for those mentees experiencing new and stressful situations. Mentors are paid a session fee of around 100 pounds per session. Alliott notes that as the task of the mentors is both intellectually and emotionally demanding, a support group has been established to help them deal with the demands of this role.

In Yorkshire, the Director of Postgraduate Training at the deanery provided funding for a scheme developed through a collaboration of the Wakefield and Pontefract GP Continuing Medical Education tutors and a senior consultant. (Powell and Napper, n.d.). This program was structured around six half-day training sessions for mentors. Of the 190 GPs in the area to receive an invitation to become mentors for the program, Powell and Napper (n.d.) noted only five participants volunteered. This number was increased to17 as a result of personal contact calls. A mentoring brochure outlining the scheme and providing biographical notes on the mentors was sent out to all GP's. Once interested, mentees identified five mentors they thought they could work with and a matching process then took place. During the first year of the scheme mentors and mentees met four times per year for a 90 minute session. A handbook was developed to cover such things as records of the sessions, objectives, progress and review of the process. As at East Anglia, mentors were paid a sessional fee and a system was developed to allow all mentors to meet and reflect on their work (Powell and Napper, n.d.).

The South Thames Region, on the other hand, established a three-year feasibility study to explore the potential of mentoring as an aid to furthering professional development and well-being among general practitioners (Freeman, 1997). The mentoring model adopted here is termed "holistic" and is based on an action research "reflective cycle" model (Freeman, 1997, pp.457-458). Twenty-five volunteer mentors were trained in a series of workshops and were allocated two or more of the 68 mentees in the program. The assigning of mentees was based on the knowledge that mentee and mentor were not known to each other. Freeman (1997) states "holistic implies an intervention that holds together all three classic components of mentoring: continuing education, personal support, and professional development" (p.457). The

mentoring program was also based on confidentiality and mentees determining the frequency of meetings. The scheme involved three to five meetings totalling around 20 hours. Mentors were reimbursed a half-day locum fee plus travel allowance for each meeting while both mentors and mentees were credited with post-graduate education allowances for each meeting.

Faculty /Academic Staff

The review of literature suggests that many medical schools around the world, particularly those in the United Kingdom and United States, have implemented processes where by junior staff receive mentoring. Although reported in the documentation it is not always clear how these processes work. For example, the Madison Medical School at the University of Wisconsin (n.d.)has a mentoring program that is described as

> a wonderful opportunity to establish professional connection that potentially may be invaluable in guiding your career at UW-Madison… (the program) promotes professional and personal development among academic staff by connecting them with others who can advise, coach and guide. (p.1)

This and other faculty mentoring programs may be extremely effective but documentary evidence is difficult to locate. An exception to this is the 50-page report on the Faculty Mentoring Program at the Stanford University School of Medicine (Fetterman, Fischbacher and Rynearson, 1999).

In 1994, its first year of operation, the Stanford program commenced with 44 mentees and 33 mentors. By the time the program was evaluated in 1998, 152 of the 203 junior staff were involved. Mentors were volunteers who, although not trained, had their role explained in an introductory letter. New faculty were assigned a mentor in their letter of offer, but were also advised to choose an additional mentor or mentors when they arrived on campus. These additions were based on a list of staff research interests circulated to new staff. Although formal relationships with clear boundaries were recommended, relationships that transpired tended to be informal. It was also advocated that the mentoring pairs meet at least once a year but that they should take the opportunity to participate in the monthly social function and the informal workshops, both sponsored by the Faculty Mentoring Program. Fetterman, Fischbacher and Rynearson (1999) report that the program was successful, explaining that it "serves the dual purpose of adding warmth to the traditionally 'chilly' climate of the School of Medicine and helping junior staff through the process of receiving tenure/or promotion". (p.1)

The Brody School of Medicine at East Carolina University has also evaluated a faculty mentoring program (Pololi, Knight, Dennis, and Frankel, 2002). While most mentoring programs are based on a dyadic model of mentor and mentee, the program at East Carolina University sought to "avoid the disadvantages of the traditional dyadic mentor model" (p.378) and implement and evaluate a facilitated group-mentoring program for junior staff. The program was called the Collaborative Mentoring Program (CMP) and was grounded in adult learning theory and the writings of Carl Rogers. Eighteen assistant professors volunteered for the initial scheme described as providing a framework for professional development, emotional

support, career planning, person awareness and the skills for a successful career. Volunteers were required to gain approval from their department or section head. The program was 80 hours in length, consisting of an initial three days and then a full day for each of the next six months. Each participant received extensive readings, bibliographies and a career planning notebook. The program focussed on such procedures as role-play, learner-centred activities, group discussion, extensive peer feedback and self-reflection. Much of the program centred on the development of skills but one hour each day was set aside for the formulation of a written personal development plan. Seventy five minutes each day were also reserved for collaboration on academic writing. Such collaborations were constructed around simulated author-editor sessions.

Overseas Doctors

Lingam and Gupta (1998) estimated that approximately 20% of the doctors working in Britain are from overseas. As a consequence the Overseas Doctor's Association has developed a mentoring scheme for its members. The purpose of this scheme "is to help mentees… identify their goals, assess their current educational situation and develop an action plan" (p.1). Some of the members of this association have been trained as mentors and they offer their assistance to new arrivals. Most mentors are consultants. There are no specific guidelines as to how a mentoring relationship should be structured. It can be a single intervention, a long relationship, part of an existing friendship or a highly structured association. The process can be either peer mentoring or mentoring of trainees. Peer mentoring usually consists of meetings between two consultants. The mentoring of trainees, on the other hand, occurs when a consultant advises a trainee on how to maximise his or her training program. The basic rules for this mentoring program relate to confidentiality, establishing boundaries in the relationship, and determining the frequency, duration, location and recording of meetings. The Association has now produced a mentoring handbook (British Medical Journal, 1998b, p.1), which, among other things, focuses on the practical conduct of mentoring sessions.

Members of minority groups

While mentoring programs have been used by organisations as an affirmative action strategy for women (Bruce, 1995; Eliasson, Berggren and Bondestam, 2000) and members of minority groups (Edwards, 1995; White, 1990), Faculties of Medicine in universities have also begun to implement mentoring programs as a means of developing and supporting members of minority groups (American Academy of Orthopaedic Surgeons, 1997; Johnson, Jayadevappa, Taylor, Askew, Williams and Johnson, 1998). For example, Johnson et al. (1998) describe a comprehensive minority faculty development program established by the University of Pennyslvania's School of Medicine. The program aims to not only increase the number of minority students and faculty (i.e. members of the African American and Hispanic communities) but also to provide ongoing learning and development opportunities in areas such as research, publication and writing.

The program consists of five major activities, involving a medical student recruitment program; a medical student academic enrichment program; resident, fellow and postdoctorate activities; faculty recruitment program; and faculty development

program. Two of these are now discussed. Firstly, The Medical Student Recruitment program invites a cohort of minority students (i.e. students who have completed two years' of undergraduate education) to the University over summer to develop their skills in research and basic science in order to stimulate their interest in academic medicine. During this time, students interact with medical students and faculty during the summer as well as receive ongoing career counselling and support leading to the completion of the medical school application process (Johnson et al. 1998, p.240).

The second program, the Faculty Development program, has as its aim the retention and development of minority faculty staff. A central component of this program is a cadre of staff who serves as mentors for minority faculty members. Their role is to help minority faculty members prepare grant applications, become published and assist with other aspects of their work. There is also a group of specialist staff (i.e. research assistants, statisticians, evaluation specialists, and others) who provide minority faculty with research support and workshops that develop their medical presentation skills (Johnson et al., 1998, p. 242). According to Johnson et al. (1998) two successful outcomes of the integrated programs have included increased enrolment figures of minority students in the medical program and an increase in the number of under-represented minority faculty by almost one-third since 1993-1994.

Specialist Areas

Two examples of mentoring in specialised medical areas relate to doctors in accident and emergency (A&E) departments and laparoscopic surgery. Okereke and Naim (2001) report the results of a survey study of A&E senior house doctors in two large inner city teaching hospitals in the United Kingdom. Both hospitals had a formal mentoring structure that entailed the allocation of a mentor to each senior house doctor when they commenced work. The doctors were told to contact their mentor if they had any problems but the mode, frequency and location of contact were not described. Apparently, "details of the relationship are not outlined nor are priorities detailed". (Okereke and Naim, 2001, p.260). Given these details, it is probably surprising that 14 of the 23 doctors surveyed "felt that mentoring had not helped them approach the difficulties of working in an A&E department" (Okereke and Naim, 2001, p.260).

The second example of mentoring in a specialised area of medicine relates to urologic laparoscopic surgery. Staff from John Hopkins University reported in 1996 and 1997 the outcomes of "telementoring" and "telesurgical mentoring" from a remote site by an experienced endoscopic to a doctor at the site of the operation. In the 1996 (Moore, Adams, Partin, Docimo and Kavoussi) report that the "mentoring" took place over a distance of 3.5 miles by a point to point link, real-time video and control of a robotic arm that manipulated the laparoscope. The results were described as effective, feasible and safe. In the larger 1997 study, Schulam, Docimo, Saleh, Moore and Kavoussi report on a similar study where telementoring was again reported to be safe and feasible. Although described as "mentoring", these studies seem to reflect on the problem of definition mentioned above.

We are aware that mentoring programs have been organised that have as their focus women and medical practitioners in rural and remote locations; however, our search

did not locate studies in these areas that contained adequate description of either programs, participants or outcomes.

Outcomes From Mentoring

In our review of 82 articles relating to mentoring in medical contexts, we found a relatively few (i.e. eight) that reported data on positive and/or negative outcomes associated with mentoring. The literature does suggest that relatively few mentoring studies have been reported in medical contexts (Kirsling and Kochar, 1990; Pololi et al., 2002; Rodenbauser et al., 2000). This lack of research into outcomes was also highlighted by Kirsling and Kochar (1990). We did find a number of articles commending that mentoring should be conducted (American Academy Of Orthopaedics Bulletin, 1997; Kirsling and Kochar,1990; Physician Health Services, 2001; SCOPME, 1998b; Tobin and Edwards, 2002;) and articles that analysed the mentoring literature and made recommendations about the potential paths to follow (National Centre Of Leadership in Academic Medicine, n.d.; Morzinski and Fisher, 1996; SCOPME 1998a). The following discussion focuses on the findings from the eight articles that reported research based studies and describes the positive and negative outcomes of mentoring for participants of these programs. These outcomes are summarised in Table 3. In previously reported analyses in education (Hansford et al., in press) and business (Hansford et al., 2002) it was possible to differentiate between outcomes for mentors, mentees and the organization. This was not possible with the small number of outcome studies reported in medical contexts. These outcomes were extracted from reports by duBoulay (1996), Connor, Bynoe, Redfern, Pokoro, and Clarke (2000), Fetterman, Fischbacher and Rynearson (1999), Freeman (1997), Koberg, Boss, Chappell, and Ringer (1994), Okereke and Naim (2001), Pololi, Knight, Dennis, and Frankel (2002) and Woessner, Honold, Stehnle, and Stendel (1998).

Table 3

Outcomes For Participants In Medical Mentoring Studies (N=8)			
Positive Outcomes		**Negative Outcomes**	
Personal growth	8	Organisational and attitudinal barriers	7
Networking and sense of community	2	Time restraints	5
General benefit	2	Problems regarding mentors	4
Job satisfaction	2	Seeking help signals weakness	2
Professional growth & development	2	Work load	2
Facilitated change	2	Had not met	1
Transference of acquired skills	2		
Continue to meet	1		

In terms of positive outcomes, there were eight instances where the data reports that participants experienced personal growth. In some instances, these were simply comments indicating general personal growth while others referred specifically to enhanced confidence, interpersonal contact, greater capacity to self appraise, more valued as a person and a greater sense of personal inclusion. It can be observed in Table 3 that categories such as networking, job satisfaction and professional growth were indicated as positive outcomes. It is also indicated that mentoring may have an influence on the facilitation of change and the capacity to use the skills acquired in

mentoring settings elsewhere. In one study, a positive outcome was the continuance of group meetings despite the end of the formal sessions.

Organisational and attitudinal barriers were identified as the major category of negative outcomes from medical mentoring settings. Negative organisational and attitudinal barriers included ambivalence to the project by management, minimal support from management, issues relating to use of resources, sloth and procrastination by some participants, distance travelled to meetings, problems arranging schedules and a belief that mentoring should not be formalised. Time restraints created problems for some mentors and mentees and in some programs, the mentors were not trained, or possibly not liked. Interestingly enough, two studies mentioned that seeking help indicated weakness. Given the regularity of the previously mentioned stress of workload in the literature, this was only identified as a negative outcome in one study.

Medical Outcomes Compared to Other Contexts

In this next section we make some comparisons between outcomes of mentoring from education and business contexts with outcomes of mentoring from medical contexts. To do this, we draw upon the findings of two large structured reviews we conducted on mentoring. A more detailed explanation of this process as well as the outcomes of the paper can be found elsewhere (Hansford et al., 2002, in press). We compiled two comprehensive databases on mentoring in a range of educational contexts such as schools and universities and business contexts such as finance, banking, accounting and retail contexts. We located 159 research papers on mentoring as it occurred in educational contexts (Hansford et al., in press) and 151 research papers on mentoring as it occurred in business contexts (Hansford et al., 2002). These papers were dated from 1985-2000. For inclusion in our sample, all of the papers had to meet two criteria. Firstly they had to report original findings or findings generated by the particular study; and secondly they had to focus on the use of mentoring in an educational or business context. We coded each paper according to factual information such as year of publication, source, country of study, sample size, etc and descriptive data such as positive and negative outcomes of mentoring for the mentor, mentee and organisation. In order to provide as valid a coding of descriptive data as possible, consensus had to be reached between two of the coders and then confirmed by the third author. We believe that the findings of our previous studies (Hansford et al., 2002, in press) do provide data sets against which the outcomes of medical mentoring can be compared. This is done in the awareness that medical outcome studies are few in number and in their infancy. Given this situation, the comparisons made are cautious and tentative.

In medical contexts, personal growth was the most frequently identified positive outcome. The educational data equivalent to personal growth was identified as "personal satisfaction/reward/growth" and was evidenced by mentors in 16% of the 159 studies. Forty two percent of educational studies reported mentees had experienced "support/empathy/encouragement/counselling and friendship" (Hansford et al., in press). This cluster of outcomes has a clear similarity with personal growth in the medical studies. In the business studies two clusters of positive outcomes "pride/personal satisfaction" and "personal/interpersonal development/confidence" were identified as positive outcomes for mentors in 13% of the 151 studies. Again

these clusters appear to have a similar connotation to personal growth in medical contexts. For mentees, 15% of business studies mentioned as a positive outcome "self- confidence, respect, personal/interpersonal growth" (Hansford et al., 2002)

Networking and sense of community was mentioned as positive outcomes in medical contexts. In the education data relating to mentors, 21% of the studies recorded "collegiality/collaboration/networking/sharing ideas/knowledge" as the most positive outcome (Hansford et al., in press). In business studies "networking/collegiality/ reciprocity" was the most frequently named positive mentor outcome (Hansford et al., 2002).

The medical context studies mentioned job satisfaction as a positive outcome for participants. In the business database "career satisfaction/motivation/plans /promotion" was the most frequently identified positive mentee outcome (50% of the studies). Mentors in business studies reported that "career satisfaction/motivation/ promotion" was the second most frequent positive outcome (Hansford et al., 2002). In education studies "career affirmation/commitment" was stated as a positive mentee outcome in 20% of the studies. A similar high positive rating was not evident in data for educational mentors (Hansford et al., in press).

Some positive categories identified in education and business but not in the small medical database were "reflection" and "ideas/feedback/strategies". In 20% of the educational studies mentors suggested that their capacity to reflect on actions and behaviours was perceived as a positive outcome of the involvement in mentoring (Hansford et al., in press). In 31% of the business studies the mentees reported as positive the gaining of ideas, feedback and strategies (Hansford et al., 2002).

In terms of negative mentoring outcomes, the medical studies identified organisational and attitudinal barriers as the major difficulty. Yet in only 2% of the business studies, resistance/ lack of support by management was rated as a problem for business mentors (Hansford et al., 2002). Lack of time was a negative outcome experienced by participants in medical contexts. It was also the major negative outcome for educational mentors, educational mentees and business mentors (Hansford et al., 2002, in press). Aspects of mentor training and specific characteristics of mentors were considered problems by medical personnel, educationalists and business people. It was interesting to see that two of the medical studies reported a problem not mentioned in the other databases. This negative outcome arose from a belief that seeking a mentor was a sign that you could not cope, and thus a sign of weakness.

Some problems associated with formal mentoring programs in medical contexts

In our examination of mentoring in medical contexts, many papers raised issues relating to the establishment of programs. Rather than criticising such programs, these papers confirmed that careful planning needs to precede such projects. It is important to acknowledge that while our search of the empirical literature on formal mentoring programs in medical contexts did not yield a great quantity of work, it appears that mentoring has been and continues to be an important learning process in medicine. The dearth of empirical literature is probably best explained by Bligh (1999) who points out that, "most mentoring is informal and, by its nature, often invisible" (p.2).

However, Bligh notes that there is an urgent need to make professional support of various kinds, such as mentoring, available for doctors at different times during their career. Assuming that this is correct, then one of the problems to be faced is that of gaining commitment from the institution. The National Center of Leadership in Academic Medicine (n.d.) simply states, "institutional commitment and support are essential, especially from the senior administration. This is necessary to make the program visible and its goals attainable" (p.2)

As mentioned previously, there is a lack of clarity in defining the terms mentor and mentoring. Indeed, Freeman (1997) suggests there is a "growing tendency to use the title "mentor" to cover a wide variety of activities, thus creating confusion" (p.459). Until this confusion is removed, there will continue to be uncertainty regarding what is implied when medical settings talk about establishing mentoring programs. Fetterman, Fischbacher and Rynearson (1999) mention such things as the quality and quantity of mentors, the recognition of mentors, the training of mentors, indifference and attitudinal barriers. Medical contexts considering the establishment of a formal mentoring program would need, in their planning, to consider the perceived problems in mentoring.

In an article directed toward human resource management Ehrich and Hansford (1999) discuss the pros and cons associated with designing and implementing a mentoring program. It is our impression that despite the passage of some years mentoring still carries with it connotations of fuzziness, softness and "feel good" when it should be clear, rigorous and constructive. Ehrich and Hansford (1999, pp 99-103) reiterate warnings by others that mentoring can have a "dark side" and it is suggested that those interested in developing a mentoring program be aware that poor and inadequate programs can have detrimental effects. Both Long (1997) and Douglas (1997) provide more detail on the possible drawbacks that can be aligned with mentoring.

Critical Issue in Establishing a Mentoring Program

Our current review revealed considerable interest in mentoring from the medical profession. This interest was evident not only in those papers reporting outcomes of mentoring programs, but also in papers that simply called for the inclusion of mentoring programs in medical contexts such as universities, hospitals and other environments based on the perception that mentoring could improve professional development and specialist skills of medical practitioners. As formal mentoring programs do not seem to be as widespread in medical contexts as they do in other contexts, it would seem appropriate to afford some discussion to a number of critical issues relating to the establishment of mentoring programs. These issues, whilst generic in focus, have implications for the planning and design of mentoring programs across a range of medical contexts. With this said, however, it is understood that general practitioners may interpret and implement the following points regarding the establishment of a formal mentoring program in a somewhat different manner from a medical faculty in a University.

- **Organisational Support**

Mentoring programs in any setting, including medical contexts, require strong organisational support. When they are integrated into the organisational systems (for example, performance appraisal systems) they are more likely to be seen as valuable and integral to the operation of the organisation (Douglas, 1997). Furthermore, it is important that personnel enlisted as mentors (such as experienced general practitioners) receive support and recognition for their contribution to such programs from management (Burke and McKeen, 1989). For example, participation in such programs may be viewed favourably for promotional purposes. In their study, Fetterman, Fischbacher and Rynerson (1999) indicate that although there was considerable positive comment relating to mentoring, "there appears to be some administrative ambivalence about the need for a mentor program" (p.12). Endeavouring to implement a formal mentoring program without strong and identifiable managerial support is likely to fail. According to Cobb and Gibbs (1990) mentoring should be anchored in the strategic needs of an organisation.

- **Clarification of Goals and Roles**

Like any program, the success of mentoring programs is contingent upon the articulation of the goals and roles that are to be performed by mentors in that program. Mentoring programs should be communicated to relevant individuals such as mentor doctors (i.e. senior general practitioners) and mentees (i.e. novice general practitioners) as well as other staff so that there is an awareness and visibility of the program. The paper from the Centers of Leadership in Academic Medicine (n.d.) talks about mentoring programs being "visible and its goals attainable" and the need for "campus awareness" of the potential value of such programs. Frank and open discussion about expectations should take place between the parties so that mentors and mentees are aware of each other's roles and expectations. In his discussion of general practitioners, Alliott (1996) goes even further and suggests "job descriptions should be set up" (p.4). Tovey (1998) argues that a set of program rules or guidelines be developed to govern formal mentoring programs. Some examples of guidelines might include (i) mentors will not make excessive demands on the time of novices and vice versa; and (ii) mentors will not 'overly protect' mentees, but allow them to develop independence and autonomy.

- **The Matching Process**

In any workplace, professional or personal incompatibility between the mentor and mentee can undermine the mentoring process. As evidenced in an earlier review of the educational literature, successful mentoring relationships are more likely to occur when mentors and mentees are carefully matched in terms of professional expertise and personality (Hansford et al., in press). MacCallum and Baltiman (1999) suggest that 'unsuccessful matches can be worse than no mentoring at all' (p. 1). In view of this, some mentoring programs advocate voluntary participation as a way of avoiding unsatisfactory matching outcomes. For example, Douglas (1997) suggests that participation by mentors and mentees should be voluntary and comments that if "participation is not perceived as voluntary, the effectiveness of the initiative will be diminished by participant resistance" (p. 97). Others suggest that mentees should be allowed to select their own mentors (Cahill, 1996). Likewise Okereke and Naim (2001) argue for "voluntary assignment of mentors and mentees" (p.4) and this is supported by Rodenhauser, Rudisill, and Dvorak (2000).

According to Tovey (1998), critical to the matching process is having access to a pool of mentors who are experts in the field, committed to the program, able to build and manage relationships and willing to share knowledge. These qualities apply to mentoring programs in all contexts. Interestingly some papers highlight potential dangers in the use of "in house" mentors. For example, Grainger (2002) states that programs should "beware of using mentors in your organization, as this can be seen as underhand ways of achieving power, influence, promotion, or going above your boss" (p.7).

- **Training**

Tovey (1998) maintains that training of mentors is vital if mentors are to understand how to facilitate the learning of mentees. An important decision for organisations is whether mentors should be drawn from within an organisational structure or provided by an external consultant. For instance, in a hospital environment, training could be provided internally by an experienced medical administrator, or externally by an educator. Alliott (1996) argues for the training of mentors and in a discussion regarding pediatric fellowships, it is contended by the American Academy of Pediatrics (2001) that not only should mentors be trained, there should be federal grants to support mentoring. The type and length of this training would vary according to the nature and aims or goals of the program. Program planners also need to determine whether or not mentees should be trained. If mentees are not to be offered training, however, it is important to ensure that they are included in discussions with both their mentors as well as the person overseeing the mentoring program so that they understand the nature, purpose and goals of the program.

- **Resourcing**

Sufficient personal and financial investment in the mentoring program are necessary in order to ensure that mentors have adequate training, time, energy, and resources to effectively and enthusiastically carry out their role. If programs are to be successful, ongoing and visible support by management (in dollars and kind) for mentoring programs is also critical. Powell and Napper (n.d.) discuss the need to identify sources of funds for mentoring and argue that "most general practitioners will not pay for mentoring until it is established and valued as a mainstream professional development activity" (p.6). Connor, Bynoe, Redfern, Pokora and Clarke (2000) also raise the issue of funding, pointing out that "personal factors", "cultural factors" and "organisational factors" (p.747) must be considered in planning for mentoring.

- **Monitoring and Evaluation**

Feedback and evaluation of a mentoring program itself are critical. However, the mentoring literature continues to be critical of the lack of rigorous and valid evaluation processes. Morinski and Fischer (1996) discuss in some detail the weaknesses associated with evaluating mentoring and provide a useful evaluation model for formal mentoring programs. Procedures for monitoring and assessing a program must be clearly defined during the developmental stages of the program. To ascertain a program's effectiveness, Kram and Brager (1991) recommend the use of interviews, focus groups and surveys. It is important that whoever is responsible for

overseeing the mentoring program seeks information and feedback from mentors and mentees during the course of the program through focus group sessions and/or interviews. On completion of the program, surveys could be used to determine if program goals have been met. It is evident that mentoring programs for medical personnel should be subjected to continued appraisal and refinement in order to maximise the potential learning and developmental benefits for all concerned.

CONCLUSION

Mentoring is a complex, dynamic and sensitive interpersonal learning process. It would be misleading to suggest that it is an organisational panacea (Ehrich and Hansford, 1999) because it is not without its "dark side" (Long, 1997). For instance, organisational and attitudinal barriers, time constraints, and problems regarding mentors were some of the difficulties associated with mentoring in medical contexts. However based on our previous research on mentoring in both educational and business contexts (Hansford et al., 2002, in press) we would argue that formal mentoring programs hold considerable potential for practitioners in a range of contexts; and medical contexts are no exception. A simple implication of this paper is that formal mentoring programs can be successful and are contingent upon careful long term planning and skilful human resource leadership. The critical issues raised in our discussion that have been supported by education and business oriented literature may be of some assistance to those who are charged with the design of formal mentoring programs in medical contexts.

While a great deal has been written over the last two decades about mentoring across a variety of disciplines and professions, our current review found little empirical research on mentoring in medical contexts. Three possible explanations for the dearth of empirical literature include (1) there are few formalised mentoring programs available to medical practitioners in the USA, UK and Australia; (2) many of the mentoring relationships that do exist for medical practitioners are likely to be informal in nature and for this reason, less well-documented; and (3) there has not been the same vigilance in reporting the outcomes of mentoring research by academics. If we are to learn more about formal mentoring programs in medical contexts, more research and better dissemination of findings is needed. If mentoring is to have an impact on the lives of more medical practitioners, it will need to move from its current *ad hoc* state towards more formalised programs that are embedded within the wider organisational climate. This is not to say informal mentoring, peer mentoring or other mentoring arrangements are not worthy of study or practice. As Carden (1990) argues, mentoring should be seen as one of a variety of advisory relationships that may be available to staff who are seeking career and interpersonal development.

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